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Reducing the Interest Rate Charged on Child Support Arrears

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I. INTRODUCTION

The amount of unpaid child support (arrears) owed throughout the United States is high. Estimates by the Office of Child Support Enforcement show that arrears levels were $115.5 billion nationally and $2.6 billion in Wisconsin during federal fiscal year 2015 (OCSE, 2017).

States have several reasons to be concerned about the amount of arrears in their child support system and the rate at which arrears accumulate. First, arrears mean that those who had been due child support, whether that is the custodial parent and their children or the government, did not receive the money they were owed; increasing arrears means that there are increasing shortfalls. High levels of arrears may also lead to discouraged noncustodial parents (NCPs), who may give up on paying if they feel their debt burden is too high. High and increasing arrears also result in the child support system devoting more attention to enforcing payment of past-due amounts, raising the cost of enforcement. Finally, the federal government provides incentive payments to states with child support programs that demonstrate cost-effectiveness and efficiency. One of the performance measures that is used to calculate incentive payments is the percentage of cases owing arrears on which a payment is made. Wisconsin ranked 11th among all U.S. states in the percentage of child support arrears cases with any collections during federal fiscal year 2015 (OCSE, 2017). Thus, decreased performance on arrears may lead to decreased resources for the state.

One driver of high levels of arrears is the routine assessment of interest on arrears (Sorensen et al., 2007). Many states began charging interest on arrears in the 1990s and have subsequently witnessed rapid growth in arrears. States that charge interest regularly have

considerably higher arrears amounts than those charging intermittently or not at all (Sorensen et al., 2007).

One key effort toward reducing the amount of arrears in Wisconsin was to reduce the interest rate charged on arrears. Effective April 1, 2014, Wisconsin implemented a pilot program that reduced the amount of interest due on child support arrears from 1 percent per month (12 percent per year) to 0.5 percent per month (6 percent per year). This change was legislated in 2013 Act 20, the 2013–2015 Wisconsin State Budget. One impetus for the change was the belief that reducing the interest rate, and thereby reducing the amount of interest that accumulates, would incentivize the payment of arrears. In this report, we analyze patterns of arrears accumulation and payment on arrears before and after the policy change to see whether the policy had its intended effect.

This report uses data from child support administrative records to conduct both descriptive and multivariate analyses to address the following research questions:

1. How does the amount of interest after the policy change compare to the amount before the policy change?
2. How does the amount of arrears after the policy change compare to the amount of arrears at the policy change?
3. How does the growth in arrears over a one-year period after the policy change compare to the growth in arrears over a one-year period prior to the policy change?
4. Is the mean amount of payment on arrears (and the proportion paying on arrears) over the first year after the change different from the year before the policy change?

Section II of this report provides a summary of the policy context and a brief review of the previous theoretical and empirical literature on child support arrears. Section III provides an overview of the data and methods used to answer the research questions. Section IV provides results and Section V offers conclusions.

II. POLICY CONTEXT AND PREVIOUS LITERATURE

Child support arrears are an important but relatively under-studied topic. As noted above, the high overall level of arrears is well known. Despite the high overall arrears levels, most arrears are owed by a relatively small number of NCPs (Kim et al., 2013; Sorensen et al., 2007). For example, in December 2011, 12 percent of obligors in Wisconsin owed at least $30,000 in arrears, and 62 percent of arrears were owed by obligors owing $30,000 or more (Kim et al., 2013). Although most arrears are owed by a relatively small proportion of NCPs, most do owe *some* arrears. For example, Sorensen and colleagues (2007) find that 85 percent of obligors in nine large states owed at least something in back support, although for about one-sixth of NCPs, the debt level was less than $500.

Limited research has examined factors associated with high levels of arrears. In Sorensen and colleague's (2007) examination of nine large states, they find that some of the characteristics of those who have high arrears include having no or low income, having an order that was a high percent of reported income, having an older order, and owing support to multiple families. They highlight the importance of several policies in the growth of arrears over time, including states that charge retroactive support or that charge interest on arrears.

The effects of high arrears have also been a topic of some research. High levels of child support debt are shown to be significantly negatively related to a noncustodial father's formal employment (Cancian et al., 2013), and to his informal labor force participation and weeks worked (Miller & Mincy, 2012). High child support arrears are also negatively related to noncustodial fathers' involvement in the lives of their children: low-income fathers with high arrears have increased difficulty establishing and maintaining relationships with custodial mothers and children (Martinson & Nightingale, 2008). Furthermore, child support arrears are

associated with less contact between nonresident and their children nine years after birth, less engagement in daily activities, and less frequent in-kind support (Turner & Waller, 2016).

Because states will receive less in incentive payments if they have low levels of collections on arrears, because arrears owed to the custodial parent means that they and their children are not receiving what they were due, and because arrears may have negative consequences for NCPs' employment and contact with their children, states have experimented with methods for reducing arrears (OCSE, 2016). Some of these interventions have focused on preventing arrears by setting more realistic child support orders or reducing retroactive support (Sorensen et al., 2007). Others have involved strategies after arrears have accumulated, including amnesty programs that compromise part or forgive all of arrears owed to the state if they were deemed to be uncollectible. Other interventions provide incentives, offering arrears compromise or forgiveness as a reward for other actions of an NCP, including paying their current support (Heinrich et al., 2011).

Because charging interest on arrears has been linked to high levels of arrears (Sorensen et al., 2007), another intervention that states have considered is reducing the interest rate on arrears. The rationale is that this change would have a mechanical effect, lowering interest charged and thus lowering total arrears owed, even if there were no changes in patterns of orders or payments. However, a reduction in the interest rate could also have a behavioral effect in terms of how individuals respond to penalties, and the direction of this effect is not known. If harsher penalties for nonpayment, in this case a higher interest rate, increase the incentive to pay, then decreasing the penalty by lowering the interest rate could lead to *decreased payments and increased arrears*. This reasoning aligns with Beron's (1988) analysis of the relationship between child support enforcement and the amount of unpaid child support, which showed that an increase in

the probability of being caught and the severity of punishment decreases the amount of unpaid child support. On the other hand, harsher penalties may have a discouraging effect. A higher interest rate leads to a higher rate of arrears accumulation, which could discourage individuals who fall behind on their payments and cause them to slow down or stop paying altogether. If this is the case, decreasing the interest rate would lead to *increased payments and decreased arrears*.

Research to date has been inconclusive about the effect of lowering interest rates. This analysis is specifically designed to assess the effect of Wisconsin's effort toward reducing the amount of arrears in Wisconsin by reducing the interest rate charged on arrears. In addition to informing Wisconsin's future policy choices, it will add to the literature by determining whether lower interest has a behavioral influence on payments, and if so, whether it is associated with increased or decreased arrears.

III. DATA AND METHODS

To evaluate the effect of lowering the interest rate on child support arrears in Wisconsin, we use data drawn from the Wisconsin Kids Information Data System (KIDS). The KIDS data are composed of Wisconsin's administrative records for the child support system and include information for all child support cases in the state. Data elements include:

- orders for current support;
- collections of child support;
- how these collections are distributed (whether they are received by custodial parents or retained by the state and whether they are distributed to a current support account or to arrears); and
- arrears balances each month, including subaccounts for principal and interest.

We use KIDS data included in the Multi-Sample Person File (MSPF) housed and maintained at the Institute for Research on Poverty. The MSPF contains information on the full

universe of public program participants in the State of Wisconsin's administrative data (Brown et al., 2014), so we are able to draw upon additional program data for our analysis. In particular, we utilize demographic data found in the records of other programs, and data on SNAP receipt and UI wages, in our analysis.

The KIDS data files in the MSPF contain case-level information for every month and include information on a variety of accounts and subaccounts for each case. In this research, when we examine arrears, we consider both the amount of principal owed and the interest assessed on this principal; we refer to the amount of principal plus interest as "total arrears."[1] We focus on the distribution of collections rather than the collections themselves because distribution data are more detailed;[2] in this report we call these "payments" to various accounts. Because our research questions focus on how the policy change affects payment behavior, we focus on NCPs as our unit of analysis (rather than the case, the couple, or the child). We sum the transactions of all cases of an NCP in a particular month to create a file of NCP-month observations. Our primary variables of interest are total arrears, interest on arrears, and payments.

We focus on the 12-month periods before and after the policy change to examine trends in arrears balances and payment patterns. The policy change occurred on April 1, 2014. Because we have balance information at the end of each month, the months of April 2013 through

[1]Information on medical debt, lying-in debt, and alimony arrears are also available but are not considered here.

[2]Collections come into the child support system and are distributed according to a variety of rules governing distribution. We assume that the rules are followed, and thus consider a distribution to the arrears principal account as a "payment" on arrears. A focus on distributions rather than collections may insert some error if there is a lag between the date of collection and the date of distribution. However, for the vast majority of NCP-months in our sample (85 percent), collections and distributions are identical.

March 2014 are used for our pre-policy change period, and April 2014 through March 2015 are used for our post-change period.

We define our sample as NCPs with an open case during each of the 12 months before and after the policy change. We define an "open case" as having either a positive arrears balance or a child support order, payment, or distribution in a given month. This results in an analysis sample of 273,598 NCPs.[3] To see whether the policy change differentially affected certain subgroups of NCPs, we perform our analysis on five subgroups.

First, we examine whether the policy change differentially affected NCPs with no arrears and with the highest levels of arrears one year prior to the policy change. One might anticipate that the group most influenced by the policy change would be those with the lowest arrears, since those with high levels of arrears may already have become discouraged and thus, unresponsive to the policy change. Alternatively, perhaps those with the most arrears would be most influenced by the policy change since this group faces the highest interest charges. To set these subgroups, we examine arrears one year prior to the policy change, that is, on March 31, 2013. Nearly 30 percent of the NCPs owe no arrears, so the first subgroup contains these 81,357 NCPs (subgroup 1, or S1). The second subgroup includes the 54,719 NCPs who are in the quintile owing the highest arrears on March 31, 2013 (subgroup 2, or S2).

Next, we look at subgroups based on the date of an NCP's first order. This enables us to see whether those who are new to the system are more responsive to a change in policy, perhaps

[3]Our sample size differs from the numbers reported to OCSE for several reasons. For example, we count NCPs, not cases, and we count only NCPs who had either an order, a payment, or arrears, and the numbers of cases reported to OCSE include all open cases (so including those who do not have paternity established, the NCP is still being located, etc.). Restricting the sample to NCPs with a case open every month of the study period does not result in a sample of NCPs with substantially different characteristics than a sample of NCPs with a case open at any point in the study period, as shown in Appendix A.

because their patterns are less rigidly established. Thus, our third subgroup (S3) is NCPs whose first order is after March 31, 2011 (n = 23,917), and our fourth subgroup (S4) includes NCPs whose first order is prior to March 31, 2003 (n = 177,601).

Finally, because only full-service cases (IV-D cases) are enforced and monitored by the agency, our fifth subgroup of interest includes the 242,795 NCPs who had had at least one IV-D case (S5).[4]

Characteristics of our full sample are provided in the first column of Table 1. Our sample is overwhelmingly males (92 percent) with an average age of 42 at the time of the policy change. Nearly half the sample (45 percent) are white non-Hispanic, with 24 percent African American and 8 percent Hispanic. (Note, however, that information on race or ethnicity is not specified for 24 percent of our sample.) The majority of NCPs in our sample were born in the United States (67 percent), with most of these born in Wisconsin (44 percent overall). About one-third of the NCPs had received SNAP during the study period, although relatively few received SNAP every month. About half the NCPs in our sample were employed during at least one quarter of the study period, although employment in each quarter was uncommon.

The remaining columns of Table 1 show characteristics for our five subgroups of interest. A comparison of S1 and S2 highlights several differences between those with no arrears and high arrears. For example, those with high arrears are older, much more likely to be black, and much more likely to have older orders. They are more economically disadvantaged than those with no arrears based on the observation that they are substantially more likely to receive SNAP. However, their employment records do not show large differences. The next two columns

[4]Non IV-D cases use the collection and distribution portion of the child support system, but not the monitoring and enforcement portions.

Table 1: Characteristics of Analysis Sample

	All Mean or %	S1: No Prior Arrears Mean or %	S2: Most Prior Arrears Mean or %	S3: Newest Cases Mean or %	S4: Oldest Cases Mean or %	S5: IV-D Mean or %
Male	91.6%	91.6%	96.6%	85.0%	93.5%	91.9%
Age on 3/31/13[a]	42.0	42.2	47.1	34.7	46.6	40.6
Race/ethnicity						
Non-Hispanic White	44.9%	47.9%	33.8%	42.0%	45.7%	47.1%
Non-Hispanic Black	23.7%	10.6%	43.4%	11.9%	27.8%	26.2%
Hispanic	7.9%	7.1%	8.3%	8.3%	7.2%	8.7%
Missing or other	23.6%	34.4%	14.6%	37.9%	19.3%	18.0%
Place of birth						
United States	67.4%	56.2%	73.9%	55.0%	69.0%	73.5%
Foreign	5.6%	5.8%	5.0%	6.3%	4.7%	6.1%
Wisconsin	44.2%	40.7%	43.5%	37.1%	45.1%	48.1%
Missing or other	27.1%	38.0%	21.1%	38.7%	26.3%	20.4%
IV-D status (1=NCP had a IV-D case)[b]	88.7%	81.0%	91.7%	80.4%	89.3%	100.0%
Date of first order						
Before 3/31/03	59.5%	46.1%	93.6%		100.0%	59.9%
4/1/03–3/31/11	31.8%	36.1%	6.2%			32.2%
After 3/31/11	8.7%	17.8%	0.2%	100.0%		7.9%
Number of CPs that NCP has orders to on 3/31/13	0.6	0.5	0.6	0.5	0.5	0.7
Age of youngest child on 3/31/13[c]	13.6	11.8	18.5	4.7	17.9	12.8
SNAP receipt						
% months during study period	20.2%	11.8%	27.6%	18.3%	20.6%	22.3%
Ever during study period	31.9%	20.7%	39.6%	32.5%	30.8%	35.2%
Every month during study period	3.9%	1.8%	6.7%	2.0%	4.8%	4.2%
Employment						
% months during study period	34.9%	34.8%	34.8%	34.6%	35.1%	35.1%
Ever during study period	50.9%	50.8%	50.6%	50.4%	51.2%	51.2%
Every quarter of study period	7.9%	7.8%	7.9%	7.6%	7.9%	8.0%
Monthly wage (2015$)	$838	$834	$835	$833	$842	$842
Monthly wage when employed (2015$)	$2,399	$2,395	$2,402	$2,409	$2,401	$2,400
n	273,598	81,357	54,719	23,917	177,601	242,795

Notes: NCPs missing data on age, IV-D status, or age of youngest are not included in that row.
[a]14,536 NCPs are missing age; these include 1,545 in S1, 4,522 in S2, 86 in S3, 12,827 in S4 and 10,219 in S5.
[b]7 NCPs are missing IV-D status; these include 7 in S1, 3 in S3, and 1 in S4.
[c]35,381 NCPs are missing age of youngest; these include 13,535 in S1, 3,770 in S2, 5,648 in S3, 19,807 in S4, and 24,847 in S5.

highlight the differences between those with newer orders (S3) and older orders (S4). Those with newer orders are less likely to be male, older, and black. They have similar SNAP, employment and earnings patterns. Finally, the characteristics of S5 (IV-D cases) are quite close to the characteristics of all cases, shown in the first column, primarily because most of the sample is in S5.

Our analysis centers on our four research questions:

1. How does the amount of interest after the policy change compare to the amount before the policy change?
2. How does the amount of arrears after the policy change compare to the amount of arrears at the policy change?
3. How does the growth in arrears over a one-year period after the policy change compare to the growth in arrears over a one-year period prior to the policy change?
4. Is the mean amount of payment on arrears (and the proportion paying on arrears) over the first year after the change different from the year before the policy change?

Our approach includes both descriptive statistics and bivariate and ordinary least squares (OLS) regression analyses. For example, the bivariate analyses compare arrears balances at the time of the policy change (March 31, 2014) to that 12 months after the change (March 31, 2015). Other bivariate analyses compare the growth in arrears before and after the change (comparing the growth from April 1, 2013 to March 31, 2014 to that between April 1, 2014 to March 31, 2015), and payment amounts over the year before the change and the year after the change. OLS regressions are used to examine differences in the outcomes of interest between 12 months prior to the policy change and 12 months after the policy change. These analyses control for observed characteristics on which NCPs may differ. In particular, we include variables for gender, age, race and ethnicity, place of birth, the age of an NCPs youngest child on March 31, 2013 (as shown in the administrative record), and whether an NCP had a IV-D case. We also include a

measure for the number of custodial parents an NCP was associated with on March 31, 2013.[5] SNAP benefit receipt in the 12 months prior to and after the policy change and average monthly earnings during the same period are used to control for ability to pay. Controlling for SNAP benefit receipt and earnings also helps to control for differences in economic conditions between the pre- and post-change periods. In each analysis, each NCP contributes two observations to the analysis, one before the policy change and one after; standard errors are clustered on the NCP.

IV. RESULTS

We consider the first two questions together.

1 and 2. How does the amount of interest after the policy change compare to the amount before the policy change? How does the amount of arrears after the policy change compare to the amount of arrears at the policy change?

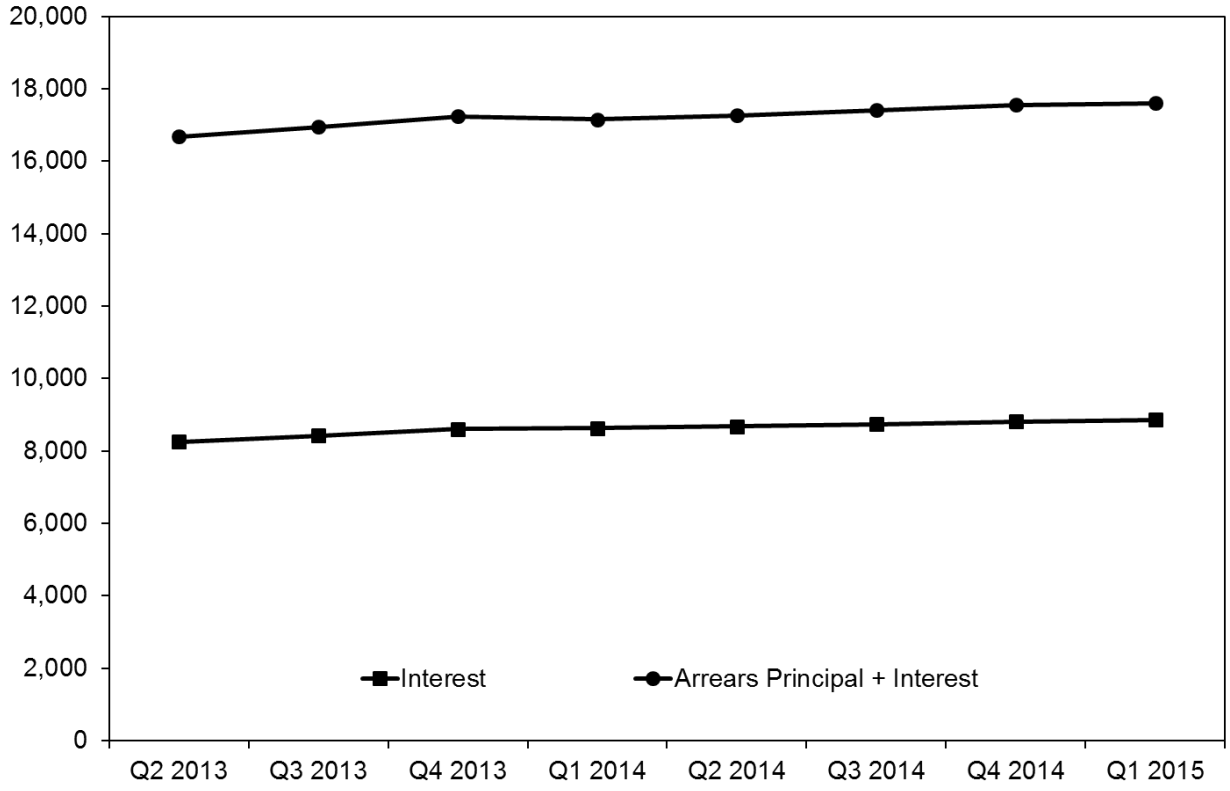
The policy change lowered the interest rate on the principal owed in the arrears account from 1 percent per month to 0.5 percent per month. Thus, unless the principal amount changed substantially, the amount of interest charged after the policy change will be less than before the change. We found that the principal amount does not change substantially; the average amount of principal owed is $8,357 on March 31, 2013 (one year before the policy change), $8,540 on March 31, 2014, and $8,752 on March 31, 2015 (one year after the policy change). Thus, the average amount of interest charged in March 2013 is $836 (1 percent of $8,357) and in March 2015 is $438 (0.5 percent of $8,752), a statistically significant difference ($p < .01$).

But our research questions are not merely about the mechanical effect, but also about whether the change in the interest rate is associated with changes in other balances and

[5]More specifically, the number of custodial parents who were owed child support by that NCP.

payments. We begin with a graphical exploration of the level of the balance in the interest account and in the total arrears account (including both principal and interest). The lower line on Figure 1 shows the average balance of the interest account at the end of every quarter for our study period (one year before and one year after the change). The upper line shows the balance of total arrears.

Figure 1: Average Arrears Balances



Both interest and the total arrears balance are fairly stable over time. Before examining each line in detail, we note that a pattern of stability is consistent with Wisconsin's reports of arrears balances to the Office of Child Support Enforcement. These reports also show substantial stability in levels; total arrears at the end of the third quarter of 2012 increased by 2 percent over

the previous year, and the annual changes in the three following years represented an increase of 2 percent, a slight decline of less than 1 percent, and a 3 percent decline to September 2015.[6]

Although the overall picture was stability, there was a slight increase in the balance due in interest over the period, from $8,255 at the end of the second quarter of 2013 to $8,857 at the end of the first quarter of 2015. The figure shows no large change at the date of the policy change, April 1, 2014; instead there is a steady slight increase over the period.

The balance in total arrears shows a similar pattern; there is a slight increase over the period, from $16,678 to $17,608, with increases from quarter-to-quarter except for the first quarter of 2014. Our examination of the detailed patterns of arrears payments over longer periods of time in other work suggests that a decline over the first quarter of the year is relatively common since this is a quarter in which a large amount of tax intercepts are collected, leading to lower principal, lower interest being charged, and (sometimes) lower total arrears.

3. How does the growth in interest and total arrears over a one-year period after the policy change compare to the growth over a one-year period prior to the policy change?

Figure 1 is useful for showing the patterns of arrears accumulation, but the fact that arrears (and interest) balances are slightly higher one year later is not strong evidence of a policy effect. One limitation is that over time arrears may have been increasing by a significant amount each year; if the trend changes so that there is only a small increase, this may be because the policy was effective. In this section we begin with simple comparisons of the annual increase in interest and in total arrears, comparing the trend over the year before the policy change to the trend over the year after the policy change.

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[6]These percentage changes are calculated from Table 85 of the 2015 report (OCSE, 2017).

The top panel of Table 2 compares the growth in the balance of interest during the year prior to the policy change to the growth in the year following the policy change. The bottom panel has a similar structure, but examines total arrears. Considering first the growth in interest, growth before the policy change was $530, and after the change was only $234; the difference of $296 is statistically significant. The subgroups with the most arrears, oldest cases, and IV-D cases all showed a slowing of interest, with the amount of increase after the change being about half the increase before the change. The newest cases also saw a significant reduction in growth, but at a lower level. Those who did not have arrears one year before the policy change (S1) unsurprisingly had little interest either before or after the change, and the very small difference of $3 between the two years was not statistically significant.

Table 2: Annual Growth in Interest and Total Arrears, Before and After the Policy Change

		Annual Growth			
	N	Before Change	After Change	Difference	
Annual Growth in Interest					
All	273,598	530	234	296	**
S1: No Prior Arrears	81,357	10	13	-3	
S2: Most Prior Arrears	54,719	2132	1015	1,117	**
S3: Newest Cases	23,917	61	49	12	*
S4: Oldest Cases	177,601	711	300	411	**
S5: IV-D	242,795	530	224	306	**
Annual Growth in Total Arrears					
All	273,598	713	446	267	**
S1: No Prior Arrears	81,357	304	213	91	**
S2: Most Prior Arrears	54,719	1,949	1,096	853	**
S3: Newest Cases	23,917	702	528	174	**
S4: Oldest Cases	177,601	643	332	311	**
S5: IV-D	242,795	719	438	281	**

** $p < .01$; * $p < .05$

Turning to the annual growth in total arrears, the first row of the bottom panel of Table 2 shows that there was also a statistically significant slowing of growth in total arrears following the policy change, with a reduction of growth from $713 to $446. This pattern holds regardless

of prior levels of arrears, age of the case, or IV-D cases: all showed a statistically significant decline in the growth of total arrears. While these comparisons provide more information than the graphical analysis, they do not control for other characteristics that may be masking part of the relationship between the policy change and the growth in interest or arrears. Because the growth in interest is incorporated into the growth in total arrears, in Table 3 we focus on a multivariate analysis of the growth in total arrears.

Consistent with the bivariate results in Table 2, the first column of Table 3 shows that there is a statistically significant difference in the growth in total arrears before compared to after the policy change. Considering both the year before and after the policy change as separate observations, annual arrears growth is higher for younger NCPs, for blacks and Hispanics (compared to whites), for those born outside Wisconsin, especially if they were born outside the United States. The annual growth in total arrears is lower for NCPs with older children and higher for NCPs with multiple custodial parents one year prior to the policy change. Those who received SNAP have higher growth in arrears, perhaps because they are more economically disadvantaged. IV-D cases have lower growth; those cases that only use the agency for collection and distribution grow by more than $577 per year faster, all else equal. This difference suggests that the agency is effective in enforcing orders for IV-D cases and is consistent with other research on Wisconsin cases (Noyes & Costanzo, 2017).

The next five columns in Table 3 show the subgroups. Similar to the bivariate findings in Table 2, all subgroups experience a statistically significant slower growth in total arrears after the policy change compared to before. The slowing of growth is strongest for those with most arrears; their arrears slowed by $771, all else equal. The patterns within the high arrears, oldest, and IV-D cases subgroups are generally similar to the patterns in the sample as a whole. There

Table 3: OLS Analysis of the Growth in Total Arrears, Including the Year Before and the Year After the Change

Variables	All	S1 No Prior Arrears	S2 Most Prior Arrears	S3 Newest Cases	S4 Oldest Cases	S5 IV-D
After policy Change	-237.7**	-50.25**	-770.7**	-90.25**	-293.4**	-242.1**
	-12.5	(8.682)	(50.40)	(27.03)	(18.28)	(12.95)
Male	71.07	-240.4	1,326	76.55	36.24	0.335
	(198.4)	(300.5)	(783.7)	(302.0)	(278.4)	(349.2)
Age (on 3/31/13)	-6.285**	0.109	-29.74**	-2.665	-8.294**	-7.226**
	(1.150)	(0.770)	(4.505)	(3.510)	(1.603)	(1.181)
Compared to non-Hispanic White						
Non-Hispanic Black	509.2**	3.177	310.9**	124.7*	558.0**	522.8**
	(19.14)	(14.94)	(66.25)	(52.63)	(26.04)	(19.32)
Hispanic	395.3**	1.434	608.8**	36.25	504.5**	399.6**
	(30.57)	(19.20)	(112.7)	(53.17)	(45.81)	(31.03)
Compared to those born in Wisconsin						
US but outside WI	269.0**	150.2**	328.2**	369.8**	220.2**	269.7**
	(18.85)	(15.50)	(64.82)	(49.27)	(26.79)	(19.07)
Foreign	541.5**	-8.107	1,524**	97.86	623.8**	530.0**
	(34.51)	(18.64)	(135.6)	(58.16)	(53.30)	(34.76)
Age of youngest child (on 3/31/13)	-7.539**	-15.07**	-46.40**	19.42*	-5.811**	-10.00**
	(1.331)	(1.006)	(5.654)	(9.294)	(1.818)	(1.403)
Number of CPs owing $ to (on 3/31/13)	797.3**	-178.5**	1,245**	-167.4**	944.4**	801.5**
	(17.68)	(9.657)	(45.41)	(38.47)	(26.37)	(17.91)
Received SNAP	327.0**	154.8**	-106.1	283.9**	317.9**	319.0**
	(17.15)	(14.77)	(61.13)	(37.74)	(24.61)	(17.36)
Average Monthly Earnings (in $1000s)	-5.5	-1.67	-15.10	-4.79	-11.70	-7.62
	-4.6	-2.79	-19.00	-11.20	-6.90	-4.82
Full-service case (IV-D)	-577.3**	56.22**	-3,000**	164.5*	-862.9**	
	(34.85)	(17.90)	(205.4)	(70.17)	(43.81)	
Constant	566.4**	605.1*	4,266**	224.3	863.1**	117.1
	(203.4)	(299.1)	(825.2)	(325.8)	(288.0)	(352.0)
Observations	453,314	133,658	93,878	36,402	270,392	416,860
R-squared	0.024	0.012	0.045	0.006	0.029	0.027

Robust standard errors in parentheses.
Model also controls for those missing race/ethnicity (or other) and those missing place of birth.
** p < .01; * p < .05

are two instances in which subgroups show different patterns. First, for NCPs without arrears a year before (S1), the newest cases (S3), and full-service cases (S5), NCPs owing money to more custodial parents experience a slower growth in total arrears after the policy change. In contrast, the NCPs with the most prior arrears (S2) and the oldest cases (S4), those owing money to more custodial parents experience a faster growth in total arrears after the policy change. Second, among those with no prior arrears (S1) and the newest cases (S3), full-service cases have faster growth after the change, whereas those with the most prior arrears (S2) and the oldest cases (S4), the rate of growth was slower after the change. Further research to understand these differences would be useful.

4. Is the mean amount of payment on arrears (and the proportion paying on arrears) over the first year after the change different from the year before the policy change?

As discussed above, if high interest rates on arrears provide a strong encouragement to pay, then lowering the interest rate might lead to lower payments, and thus higher arrears. On the other hand, if high interest rates lead to a level of debt that is quite discouraging for some NCPs, these NCPs may actually pay more if they felt lower interest made paying off their debt more feasible. We explicitly examine the extent to which NCPs are making payments toward arrears interest or total arrears, and whether this type of payments has increased or decreased after the reform.

Table 4 shows the simple comparisons. The top row shows that for all cases, payments toward the interest account were higher in the year after the reform than the year before, and that NCPs were more likely to make these interest payments. These results, while statistically significant, are fairly small in magnitude, reflecting a payment increase of $10 per year, and an increase in the likelihood of payment of less than 1 percent. The increased payment amount on interest holds all of our five subgroups; those with most arrears showed the largest increase,

Table 4: Payments to Arrears Accounts, Year Before and After the Change

		Mean Annual Payments			% with Payment		
	N	Pre	Post		Pre	Post	
A. Payments to arrears interest accounts							
All	273,598	57	67	**	10.2%	10.9%	**
S1: No Prior Arrears	81,357	1	2	**	3.6%	6.5%	**
S2: Most Prior Arrears	54,719	76	97	**	5.6%	6.6%	**
S3: Newest Cases	23,917	4	7	**	9.5%	11.4%	**
S4: Oldest Cases	177,601	85	98	**	9.9%	10.6%	**
S5: IV-D	242,795	64	74	**	11.3%	12.1%	**
B. Payments to total arrears accounts							
All	273,598	450	469	**	45.0%	44.8%	*
S1: No Prior Arrears	81,357	103	173	**	23.1%	29.1%	**
S2: Most Prior Arrears	54,719	648	690	**	39.8%	41.0%	**
S3: Newest Cases	23,917	313	380	**	49.9%	52.6%	**
S4: Oldest Cases	177,601	484	498	**	40.0%	39.6%	**
S5: IV-D	242,795	492	514	**	48.6%	48.5%	

** $p < .01$; * $p < .05$

paying $21 more than they did the previous year. The likelihood of paying also increased for all subgroups

Table 4 also shows the percent of NCPs paying towards total arrears in the bottom panel. Overall payments to total arrears increased from $450 to $469 in the year after the policy change, a small but statistically significant increase. All subgroups showed an increase. The proportion making a payment actually declined by 0.2 percentage points following the policy change, and the subgroup of NCPs with the oldest cases also saw a similar small reduction. However, NCPs with high and zero levels of arrears and those with the newest cases were more likely to make a payment following the policy change.

These simple comparisons do not control for other factors, so in Table 5 we examine a multivariate OLS analysis of payments on the total arrears account. These results confirm the findings from the simple analysis; payments on arrears are higher in the period after the reform by an estimated $21 per year. Larger effects are estimated for those with no and the most prior arrears and the newest and IV-D cases. The control variables are generally consistent with expectations, with higher payments for older NCPs, whites, those born in the U.S., and those who had IV-D cases. Those owing to multiple custodial parents also made increased payments following the policy change, as did those with younger children.

V. CONCLUSION

The level of child support arrears is very high in Wisconsin and throughout the United States; this means that some custodial parents, children, and state governments are not receiving all of the payments that they are due. This problem has been widely recognized, and states have instituted a variety of policies to try to lower the level of arrears. One policy that is being tried in Wisconsin is to lower the interest rate charged on arrears. The intended effect is that some NCPs

Table 5: Mean payments on Total Arrears, Year Before and Year After Change

Variables	All	S1 No Prior Arrears	S2 Most Arrears	S3 Newest Cases	S4 Oldest Cases	S5 IV-D
After policy Change	20.80**	71.78**	43.29**	60.10**	16.29**	23.09**
	(3.106)	(2.768)	(10.19)	(8.417)	(4.269)	(3.311)
Male	-65.16	-23.94	-819.6*	157.7*	-143.4	-149.8
	(72.70)	(40.31)	(415.5)	(62.24)	(100.1)	(129.8)
Age (on 3/31/13)	10.44**	2.701**	19.87**	7.903**	8.128**	10.49**
	(0.385)	(0.308)	(1.312)	(1.384)	(0.544)	(0.405)
Compared to non-Hispanic White						
Non-Hispanic Black	-159.6**	-52.76**	-484.1**	-93.15**	-177.4**	-167.1**
	(6.185)	(4.625)	(19.74)	(12.03)	(8.531)	(6.316)
Hispanic	-91.86**	-21.86**	-434.0**	-60.62**	-105.4**	-94.54**
	(10.38)	(7.870)	(31.54)	(19.58)	(15.32)	(10.62)
Compared to those born in Wisconsin						
US but outside WI	9.110	18.97**	-94.76**	7.682	2.585	9.055
	(6.115)	(4.917)	(16.92)	(14.98)	(8.749)	(6.219)
Foreign	-137.6**	-25.07**	-309.1**	-59.41*	-155.7**	-138.6**
	(12.10)	(8.459)	(41.97)	(23.96)	(18.78)	(12.35)
Age of youngest child (on 3/31/13)	-5.341**	-10.11**	-23.98**	-0.245	-9.088**	-3.912**
	(0.438)	(0.377)	(1.566)	(3.845)	(0.592)	(0.474)
Number of CPs owing $ to (on 3/31/13)	137.0**	24.49**	-19.81	146.8**	91.50**	135.7**
	(4.425)	(3.793)	(10.69)	(16.69)	(6.495)	(4.494)
Received SNAP	2.408	27.11**	-309.0**	-13.08	-40.18**	4.111
	(5.443)	(4.843)	(16.05)	(11.40)	(7.698)	(5.543)
Average Monthly Earnings	-0.000207	0.00147	-0.00103	-0.00332	-0.000701	-0.000489
	(0.00143)	(0.00108)	(0.00415)	(0.00363)	(0.00190)	(0.00144)
Full-service case (IV-D)	341.4**	15.66	785.8**	122.4**	424.3**	
	(8.851)	(8.184)	(41.26)	(32.24)	(9.616)	
Constant	-123.9	105.0*	761.1	-253.2**	145.5	291.0*
	(73.95)	(41.31)	(420.3)	(75.76)	(102.3)	(130.3)
Observations	453,314	133,658	93,878	36,402	270,392	416,860
R-squared	0.015	0.019	0.028	0.015	0.017	0.011

Robust standard errors in parentheses.
Model also controls for those missing race/ethnicity (or other) and those missing place of birth.
** p < .01; * p < .05

who have been discouraged by their high levels of debt under the old policy would be more likely to pay if the interest rate were lower, and a lower interest rate might also prevent other NCPs from accruing high arrears in the first place. But there could instead be an opposite effect: if high interest charges means there is a high penalty on not paying, and if NCPs are motivated to pay so that they do not face this high charge, then lowering the interest might mean that some NCPs are less likely to pay. The overall effect cannot be predicted by theory, only by an empirical test.

In this report we have conducted several empirical tests, examining the level of interest and arrears, and the level of payments on arrears, before and after Wisconsin's policy change. Overall, our findings are promising, suggesting that the policy had its intended effect of slowing down the rate of arrears growth and increasing payment amounts. There are significant declines in the rate of growth in interest and overall arrears balances following the policy change. More importantly, we find that payments toward interest increased by $10 per year and payments toward total arrears (principal plus interest) increased by $19 per year. The finding of increased payments toward total arrears was confirmed by a multivariate analysis. This suggests that lowered interest rates may result in beneficial changes to payment patterns that outweigh any potentially negative effects.

These findings are based on comparisons of arrears and payments prior to the policy change to those after it. This is limited in that other factors may have produced the observed changes (an improving economy, for example, or improvements in agency processes). Moreover, this research uses a relatively short timeframe for analysis, one year. If it takes some time for NCPs to become aware of the policy change and then more time to begin to change their behavior, an analysis that considered a longer timeframe may show larger associations.

While these analyses cannot definitively show a causal relationship between lowering interest and increased payments, the relationship holds when controlling for other factors. We view this as suggestive evidence that lowering the interest rate on arrears is beneficial. The additional penalties associated with high interest charges may not be needed to motivate NCPs to pay.

Appendix A

Table A1: Characteristics of Analysis Sample versus All NCPs with an Open Case and Any Time

	Mean or %	
	Analysis Sample	All NCPs
Male	91.6%	90.0%
Age on 3/31/13[a]	42.0	40.8
Race/ethnicity		
White	44.9%	47.1%
Black	23.7%	20.7%
Hispanic	7.9%	8.0%
Missing or other	23.6%	24.2%
Place of birth		
US	68.5%	66.6%
Foreign	5.6%	5.9%
Wisconsin	44.2%	44.4%
Missing or other	23.6%	27.6%
IV-D status (1=NCP's had a IV-D case)[b]	88.7%	88.2%
Date of first order		
Before 3/31/03	64.9%	64.9%
4/1/03-3/31/11	31.8%	31.8%
After 3/31/11	8.7%	8.7%
Number of CPs that NCP has orders to on 3/31/13	0.6	0.5
Age of youngest child on 3/31/13[c]	13.6	12.7
SNAP receipt		
% months during study period	20.2%	20.3%
Ever during study period	31.9%	32.74
Every month during study period	3.9%	3.6%
Employment		
% months during study period	34.9%	34.9%
Ever during study period	50.9%	50.9%
Every quarter of study period	7.9%	7.9%
Monthly wage (2015$)	$838	$837
Monthly wage when employed (2015$)	$2,399	$2,400
n	273,598	373,872

Notes: NCPs missing data on age, IV-D status, or age of youngest are not included in that row.
[a]14,536 NCPs are missing age in the analysis sample; 15,202 are missing age in the full file.
[b]7 NCPs are missing IV-D status in the analysis sample; 20 are missing IV-D status in the full file.
[c]35,381 NCPs are missing age of youngest in the analysis sample; 62,118 are missing age of youngest in the full file.

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